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Via Email and U.S. Mail

August 8, 2018

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Re: Harbor Island Superfund Site, East Waterway Operable Unit Feasibility Study Dispute Resolution

Dear Ms. Bilbrey:

This letter, including its attachments, is the Port of Seattle's written submission for the dispute resolution process triggered by the Port's July 12, 2018 letter to EPA remedial project manager Ravi Sanga, which is attached as **Exhibit 1**. The Port and EPA have worked very closely together on this project and we are optimistic that we will be able to resolve the current issues. As part of this process, we request an in-person meeting with you to discuss the issues raised in this letter, and we hope that we will be able to schedule such a meeting with you within a month of EPA staff's anticipated August 23 response to this letter.

On November 3, 2017, the Port submitted a Final Feasibility Study (FS) for the Harbor Island East Waterway Operable Unit of the Harbor Island Superfund Site. This Final FS was in full compliance with all prior direction from EPA on what was expected in the document. We have initiated dispute resolution to contest EPA's subsequent decision to approve the FS only with substantial new and unanticipated modifications, directing us to: 1) rewrite Appendix A to the FS, including deleting entire sections of text that had previously been agreed to; and 2) delete "all references to the Washington State Department of Ecology [(Ecology)] developed natural background and practical quantitation limit values," along with all "references to Ecology guidance as a basis for any decisions made by the EPA." Mr. Sanga's June 28, 2018 letter requiring these revisions is attached as **Exhibit 2.** The redline version of Appendix A that reflects EPA's required revisions is attached as **Exhibit 3.** The version of Appendix A that the Port submitted as part of the Final FS on November 3, 2017, is attached as **Exhibit 4.**

Appendix A, as discussed below, is of particular importance for maintaining context for the FS's analysis of remedy alternatives and their compliance with Ecology's Sediment Management Standards (WAC 173-204). The revisions to Appendix A that EPA is requiring are wholly inappropriate. They (1) reflect a lack of transparency to the public and stakeholders about

reasonable expectations for the East Waterway cleanup; (2) undermine CERCLA's statutorily-mandated approach to cooperative federalism by first ignoring important aspects of Ecology's regulations and guidance, and then directing us to remove all references to Ecology guidance from the FS; (3) create unnecessary uncertainty regarding the finality of the cleanup; and (4) contradict EPA's own guidance and the July 25, 2017 recommendations of its Superfund Task Force.

After decades of work, the Port is ready to move forward and make progress on this cleanup to the benefit of the community and the environment. We respectfully request that you reconsider EPA's June 28 direction and approve as final the complete FS, with appendices, that the Port submitted on November 3, 2017, which was developed through close collaboration between the Port and EPA. This version includes the needed transparency about the performance of remedy options and provides all that EPA needs to make a final remedy decision.

BACKGROUND

Harbor Island was placed on the National Priorities List (NPL) 35 years ago as part of the first set of NPL listings in September 1983.[1] *See* 48 Fed. Reg. 40658 (September 8, 1983). The East Waterway is the sole remaining Harbor Island Superfund Site operable unit (OU) for which EPA has not selected a remedy. The regulatory history of the Harbor Island Site is long and complicated; a timeline of significant milestones is provided in **Exhibit 5.** The Port, as an owner of industrial lands on Harbor Island, has worked with EPA as a proactive potentially responsible party (PRP) for over 25 years. A summary of the collaborative efforts between the Port and EPA related to Harbor Island Waterway sediments[2] and the early successes of those efforts, is provided in a 2006 article by Mr. Sanga published in the proceedings of the 26th annual Western Dredging Association conference, which is attached as **Exhibit 6** and available at https://westerndredging.org/index.php/woda-conference-presentations/category/43-26th-annual-weda-conference.

Work on the FS began in 2012, and the Port submitted the first draft to EPA in three parts between 2013 and early 2014. Progress from the draft FS to the draft final FS was slow, as EPA required new analyses, including an evaluation of the lowest achievable concentration that could be achieved in a "maximum remediation" scenario. EPA also struggled with the question of how decisions made for the Lower Duwamish Waterway (LDW), the Superfund site directly upstream of East Waterway, should or could be applied to the East Waterway due to the significant differences between the sites and the newly revised state Sediment Management Standards.[3] Finally, after years of discussions and formal comment resolution meetings, the Port

[1] Records of Decision have been issued for the other five operable units (OUs) for which EPA has responsibility: OU 01 – Soil and Groundwater; OU 03 – Lockheed Uplands; OU 07 – Lockheed Sediments; OU 08 – West Waterway Sediments; and OU 09 – Todd Shipyard Sediments. *See* EPA, Harbor Island, Cleanup Progress, available at https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.schedule&id=1000949.

[2] The Port and EPA also developed and implemented a multi-party consent decree in 1996 for the remediation of the Harbor Island Soil and Groundwater Operable Unit.

[3] The LDW differs from the East Waterway in many significant respects. Geographically speaking, the East Waterway is a wide, very deep tidal inlet, while the LDW is a relatively narrow and shallow river that was straightened into its current channel in the early 20th century. The East Waterway does not receive nearly as much

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submitted the Draft Final FS to EPA in October, 2016. That document reflected the results of the comment resolution meetings, which had been documented in meeting notes signed off on by both EPA and the Port. It included an Appendix A very similar to the anticipated final version that the Port submitted a year later in November 2017. EPA and the Port worked very closely on the Draft Final FS, resulting in agreed-upon approaches (and often, exact text) for resolution of EPA's comments. The Port submitted the Final FS in November 2017, in accordance with EPA's direction and the results of the EPA/Port comment resolution meetings. Only subsequent to this did EPA inform the Port that it was not willing to consider the Final FS to be final after all, and that additional revisions would be required.

Appendix A of the FS was designed with EPA's input. Its primary purpose is to provide context for the FS's analysis of remedy alternatives and their compliance with Ecology's Sediment Management Standards (WAC § 173-204). In particular, Appendix A is necessary to include to explain the 2013 changes in the Sediment Management Standards – which did not exist when the FS for the LDW was finalized in 2012. Ecology updated its regulation in part to address concerns about unachievable "natural background" cleanup standards. The revised regulation allows for the use of "regional background" concentrations in situations where achieving natural background concentrations would not be "technically possible," provided Ecology had determined regional background concentrations for that location. *See* WAC §§ 173-204-500(5)(a)(i); -505(16); -560(2)(a)(ii)(A); -560(5). The amended Sediment Management Standards also provide that "sediment recovery zones" will be "required" at sites where it is not possible to meet sediment cleanup levels within a 10-year restoration timeframe. *See* WAC § 173-204-590. These tools provide state-authorized pathways to achieving compliance with state standards, and are highly relevant to any evaluation of remedial options for the East Waterway because there is no chance that the Site will meet natural background standards in the reasonably foreseeable future.

Until very recently, EPA agreed with the Port that the information provided in Appendix A should be included in the FS, and EPA worked collaboratively with the Port on its development and finalization. A detailed chronology of Appendix A's development and EPA's direction to the Port is provided in the timeline provided in Exhibit 5. The Port first received EPA's substantially-rewritten version of Appendix A, which EPA is now requiring be used, on June 6, 2018, seven months after submission of the Final FS. The Port strenuously objected to those changes at the time, for the reasons discussed in this letter.

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sedimentation from upstream sources as the LDW, making natural recovery of the site less effective. Sediments in the East Waterway are also constantly disturbed and re-suspended by propeller wash from large container ships, and significant setbacks from large pier structures are required for dredging in the East Waterway for safety purposes, which is not an issue to the same extent in the LDW. From a regulatory perspective, the East Waterway also operates under a revised ARARs framework. The LDW FS was completed in October 2012 and the LDW Record of Decision issued in November 2014. Ecology's updated Sediment Management Standards were not promulgated until February 2013, and the corresponding explanatory guidance, the Sediment Cleanup User's Manual II (known as "SCUM II"), was not published until March 2015. *See* Wash. St. Reg. 13-06-014; Ecology, Pub. No. 12-09-057, Sediment Cleanup User's Manual II, *available at*: https://fortress.wa.gov/ecy/publications/documents/1209057.pdf.

Over the Port's objections, on June 28, 2018, EPA directed the Port to revise the Final FS by substituting a new version of Appendix A provided by EPA, and by deleting a variety of references to Ecology guidance. EPA justified these changes as necessary "in order to correctly characterize cleanup projections and the potential application of State guidance and laws." *See* Exhibit 2. To the contrary, the changes incorrectly characterize cleanup projections and the appropriate application of State standards. The Port cannot in good conscience accept EPA's required revisions. The Port therefore requests that EPA withdraw its directive and accept the November 2017 Final FS as final, with one agreed change,[4] including the version of Appendix A included in that submission (Exhibit 4).

ARGUMENT

1. EPA's changes to Appendix A will mislead the public about the expected outcome of the East Waterway cleanup.

As described above and in the timeline provided in Exhibit 5, an extraordinary amount of data collection and modeling has occurred throughout the 35 years of the Site's Superfund status. Two recurring themes emerge very clearly from all evidence and analysis:

- Nearly all of the East Waterway exceeds the Sediment Management Standards ecological protection criteria used as Remedial Action Levels for the LDW and other Puget Sound sediment sites.[5]

- No amount of dredging or other active remedial measures will result in the East Waterway achieving Sediment Management Standards cleanup levels based on "natural background" concentrations.[6]

The East Waterway is not a pristine inlet of rural Puget Sound; it is an urban, industrial working waterway with a large mass of legacy contamination in sediments, ongoing pollutant loading that occurs from upstream sources such as the Lower Duwamish Waterway and Green River, near constant resuspension of contaminants through propeller wash from large container ships, and the discharges of historical industrial wastewater, stormwater and municipal combined sewer overflows (CSOs) that drain the surrounding streets and a major industrial area. Figure 9.1-a to the FS (enclosed as **Exhibit 7**), "Predicted Site-wide SWAC for Total PCBs Over Time," illustrates this conundrum well: at time "zero" – i.e., even at the moment the cleanup is completed – none of the cleanup alternatives will even come close to meeting the natural background standard of 2 µg/kg dw PCBs.[7] In fact, the majority of the alternatives anticipate a

[4] Regardless of the outcome of this dispute resolution process, the Port will revise the cPAH risk calculations for cancer and non-cancer risks in the November 2017 FS based on the revised benzo[a]pyrene IRIS toxicity value established in 2017.

[5] The results of the Supplemental Remedial Investigation sampling show that surface sediments in more than three-quarters of the East Waterway are above Sediment Management Standards ecological protection criteria for one or more contaminants.

[6] Natural background-based cleanup levels are set when risk-based cleanup levels fall below natural background levels. Typically, this occurs for human health exposure pathways for bioaccumulative chemicals.

[7] 2.5 µg/kg is the standard as EPA calculates it; Ecology calculates it at 3.5 µg /kg.

time zero concentration of approximately 40 µg/kg.[8] Rather than explaining this reality transparently, as Appendix A was intended to do, EPA's required revisions are based on the unrealistic premise that the natural background concentrations could be achievable.

As edited by EPA, Appendix A will mislead, rather than inform, current and future decision makers, the public, tribes, and other stakeholders. It will also obfuscate the administrative record, which should clearly document the evidence and analysis with regard to the remedy's achievability. Specific examples illustrating these concerns are presented below.

A. Deletion of the Technical Possibility and Net Adverse Environmental Impact Sections

EPA's edits to Appendix A delete essentially all of Section 4. These deletions include Section 4.1 (Technical Possibility), including a subsection describing the maximum remediation scenario analysis (Section 4.1.1), which EPA had required the Port to perform, as well as another subsection (Section 4.1.2) describing an analysis of the contaminant concentrations that could likely be maintained over the long term. This is relevant because Ecology's SCUM II guidance clarifies WAC § 173-204-560(2)(a)(ii)(A) such that upward adjustment of the cleanup level should be based on "whether it is technically possible to achieve and maintain the cleanup level at the applicable point of compliance." Ecology, Pub. No. 12-09-057, Sediment Cleanup User's Manual II (Dec. 2017), at 7-4 (emphasis added).

EPA had requested information regarding the lowest contaminant concentrations that remediation of the East Waterway could possibly achieve. As documented in Comment Resolution Meeting #3 (April 27, 2015) between EPA and the East Waterway Group ("EWG," comprising the Port, City of Seattle, and King County) (see **Exhibit 8**), EPA required the analysis of a hypothetical maximum remediation scenario using the most significant dredging and residuals management approaches available to estimate the lowest achievable concentrations. This analysis was performed to provide context for the range of alternatives evaluated in the FS and to present an estimate of the best possible scenario following construction. The Port completed this analysis and documented it in Appendix A, Section 4.1.1; EPA deleted this discussion in its final edits.

EPA's edits also delete all of Section 4.2, which discusses how the Sediment Management Standards factor potential net adverse environmental impacts into the upward adjustment of cleanup levels. Section 4 retains only a single quotation from the Sediment Management Standards addressing upward adjustments to cleanup levels, which EPA introduces with a statement that "[f]or those cleanup levels based on natural background, there is the potential for post-remedial concentrations to remain above the cleanup level due to regional influences." *See* Exhibit 3 at 5 (quoting WAC § 173-504-560(2)(a)(ii)). This sentence is both misleading and inaccurate. It misleads the reader by implying the failure to meet natural background concentrations following remedial action is only potentially a problem, and it is inaccurate

[8] Although 40 µg/kg dw is 20 times higher than EPA's natural background concentration for PCBs, that concentration is about one fifth of the site remedial action level and one twenty-fifth of the PCB cleanup standard used by EPA at many other CERCLA sediment sites in other regions of the country (1,000 µg/kg dw). In comparison, the PCB cleanup level chosen by EPA for the Commencement Bay CERCLA site in Tacoma is 300 µg/kg dw.

insofar as it assigns responsibility for any failure to meet natural background concentrations to "regional influences." Although "regional influences" beyond the bounds of the East Waterway itself, such as inputs from upstream, will continue to contribute contamination to the site, dredge residuals alone will ensure that the East Waterway will not meet natural background concentrations, as will the continuous disturbance and movement of sediments in an actively-used waterway. The discussion of the maximum remediation scenario demonstrated and clearly documented these limitations, but EPA's edits excise that discussion in its entirety from Appendix A.

These eleventh-hour deletions came as a surprise to the Port. EPA's comments on these sections were minimal following submission of the Draft Final FS, and these edits were made only after the Port had submitted the Final FS. There is no factual, technical, or legal basis to support the omission of the EPA-required maximum remediation scenario analysis. Doing so only serves to obfuscate the reality we are faced with, and it would benefit both EPA and the Port to be transparent about that reality in order to appropriately set expectations, expedite the cleanup (saving taxpayer dollars in the process), and achieve finality.[9]

B. Edits Creating the Impression that Natural Background PRGs are Achievable

In addition to its deletions of statements explaining that natural background goals are not achievable, EPA has inserted multiple statements implying that they are. They are not. Specific instances of these edits occur in Section 1 (Introduction) and two instances in Section 4 (Adjustment of Cleanup Levels). *See* Exhibit 3 at 1, 5.

The Introduction to the November 2017 Appendix A clearly states that PCBs and dioxins/furans "have cleanup levels based on unattainable natural background or [practical quantitation limit][10] concentrations, based on the best-estimate predictions of sediment concentrations in the FS (e.g., see FS Section 9)." *See* Exhibit 4 at 1. This statement accurately reflects the conclusion of the "maximum remediation scenario" analysis required by EPA, as well as all other available lines of evidence. EPA's edits strike that text and replace it with the following:

> As described in Sections 2, 3 and 4, total polychlorinated biphenyls (PCBs) and dioxins/furans currently have cleanup levels based on natural background concentrations, which *may be difficult to achieve* based on the best-estimate predictions of sediment concentrations in the FS (e.g., see FS Section 9).

See Exhibit 3 at 1 (emphasis added). The "may be difficult to achieve" phrase is not an accurate reflection of the FS's predictions of future sediment concentrations, and leaves the impression it is possible to achieve natural background concentrations for PCBs and dioxins/furans. Every analysis completed and every available line of evidence shows that there is no available remedy

[9] Three public entities – the Port of Seattle, the City of Seattle, and King County – have jointly funded the RI/FS work on the site to date.

[10] Practical quantitation limits (PQLs) represent the lowest concentration of a particular chemical that a lab can detect under ideal conditions. When risk-based concentrations cannot be met, Ecology's regulations allow upward adjustment to the higher of either the PQL or natural background. *See* WAC § 173-204-560 (3)(b).

for the East Waterway that can attain natural background concentrations for PCBs and dioxins/furans. *See*, *e.g.*, Exhibit 7 and section 9.3.1 of the FS.

Similarly, in the discussion of possible upward adjustments in Section 4, EPA has added this sentence:

> If, after evaluating long-term monitoring trends, EPA doesn't expect the remedy to comply with natural background-based PRGs, compliance with the [Sediment Management Standards] could be accomplished through [upward adjustment for PCBs and dioxins/furans].

See Exhibit 3 at 5. This revision implies that EPA currently either expects the remedy to comply with natural background-based PRGs, or has no expectations one way or the other. Rather than implying that there is a reasonable chance that the remedy will achieve natural background concentrations, the prior text needs to be retained in order to accurately reflect the results of the FS analyses.

2. EPA's changes to Appendix A inappropriately delete references to Washington State Department of Ecology Regulations and Guidance, undermining CERCLA's intent to foster cooperative federalism.

Section 121(d) of CERCLA requires that remedial actions either attain or waive federal environmental "applicable or relevant and appropriate requirements" (ARARs) or more stringent state environmental ARARs upon completion of the remedial action. *See* 42 U.S.C. § 9621(d). State ARARs are requirements of state law that have been promulgated and are of general applicability. *See* EPA, EPA/540/G-89/009, CERCLA Compliance with Other Laws Manual: Part II (August 1989), at Ch. 7. State ARARs are to be identified "on a site-specific basis during critical points in the remedy selection process." *Id.* at 7.1. EPA guidance also provides, "state policies or guidance used in implementing or interpreting criteria or standards, although not ARARs, should be considered in determining the remedy." *Id.* at 7.1.1. In the case of the Lower Duwamish Waterway and the East Waterway, state ARARs include Ecology's Sediment Management Standards (WAC § 173-204), the state Model Toxics Control Act and its associated regulations (Chapter 70.105D RCW; WAC § 173-340), and several other requirements, as listed in Table 4-1 of the East Waterway FS and Table 26 of the Lower Duwamish Waterway ROD.

A. <u>Deletion of Description of Ecology's Natural Background and PQL Values</u>

EPA's edits delete a paragraph (*see* Exhibit 4 at 5) from the November 2017 version of Appendix A that describes Ecology's natural background values and practical quantitation limits for three key East Waterway contaminants (PCBs, dioxin/furans, and arsenic).[11] This description discloses the differences between how the Department of Ecology implements its own

[11] *See* Note 10 above. Ecology defines the PQL as "The lowest concentration that can be reliably measured within specified limits of precision, accuracy, representativeness, completeness, and comparability during routine laboratory operating conditions, using department-approved methods. When the limit for an analytical method is higher than the concentrations based on protection of human health or the environment, the department may require the use of another method to lower the practical quantitation limit." WAC § 173- 204-505(15).

regulations and how EPA interprets this same state ARAR. It is important to retain this text because, for example, FS analyses demonstrate that the cleanup will likely meet the natural background concentration for arsenic as determined by Ecology (i.e., 11 µg/kg), but not as determined by EPA (i.e., 7 µg/kg).[12] *See* FS Table 4-3. This results in the incongruous outcome where FS remedial alternatives are compared to a state ARAR that would be met under the state's interpretation of its own regulations, but not under EPA's different interpretation.[13] EPA's edits to Appendix A do not explain this important inconsistency. For purposes of transparency to the public and stakeholders, this text needs to be retained.

B. Deletion of Sediment Recovery Zone Description

The Sediment Management Standards require the establishment of "sediment recovery zones" in circumstances where cleanup levels will not be met within 10 years. WAC § 173-204-590. Sediment recovery zones are a tool that Ecology included in the Sediment Management Standards in order to address exactly the situation faced by both Ecology and EPA at urban sediment cleanup sites, where Ecology's sediment cleanup levels generally cannot be met within a reasonable timeframe. The Sediment Management Standards provide that contaminant concentrations within the sediment recovery zone "shall be as close to the sediment cleanup standard as practicable," WAC § 173-204-590(2)(g), as well as providing for ongoing involvement by Ecology to ensure that concentrations continue to decrease over time. Section 5 of November 2017 Appendix A describes this important tool.[14] This description is important because it describes an approach to compliance with Sediment Management Standards that would not be intuitively obvious to the public or other stakeholders.

EPA's minimal comments on this section in the Draft Final FS were accepted and incorporated into the November 2107 Final FS, but EPA has changed course and is now requiring that the section be deleted in its entirety. As with the other required deletions discussed above, this revision obscures the fact that there are multiple pathways to compliance with state Sediment Management Standards, a key ARAR for the East Waterway. In the interest of transparency, the text describing a state requirement applicable to the East Waterway needs to be retained.

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[12] Unlike for PCBs and dioxins/furans, FS analyses show that remediation of the East Waterway will likely meet the natural background arsenic concentration, provided that concentration is calculated using Ecology's methods. Using EPA's preferred method for calculating natural background, East Waterway remediation will not result in attaining a natural background concentration.

[13] Another incongruous result is that the cleanup level for arsenic at CERCLA sediment cleanup sites in Washington will be lower than for all sediment cleanup sites managed by Ecology, even though EPA and Ecology are applying the same state regulations to develop cleanup levels. Were there no state standard to apply, EPA would otherwise apply a less stringent standard; the stringency here is solely driven by EPA's different interpretation from the State for how to apply state standards.

[14] For a site like the East Waterway, where some cleanup levels will not be achieved, the Sediment Management Standards' sediment recovery zone requirement provides a vehicle for Ecology to periodically review the site to ensure that practicable measures are implemented to further reduce concentrations until Ecology develops an attainable regional background concentration for that location.

C. Deletion of All References to Department of Ecology Guidance

EPA's direction to the Port to delete references to Ecology guidance directly conflicts with EPA CERCLA guidance, which provides that "[s]tate policies or guidance used in implementing or interpreting criteria or standards, although not ARARs, should be considered in determining the remedy." *See* EPA, CERCLA Compliance with Other Laws Manual: Part II, at 7.1.1. SCUM II provides Ecology's guidance on implementing the Sediment Management Standards (an ARAR for the East Waterway site). Not only has EPA opted to disregard Ecology's SCUM II guidance concerning how key elements of the Sediment Management Standards should be implemented, EPA has now directed that all references to that guidance be deleted from Appendix A.[15]

EPA's reversal on providing information from Ecology's SCUM II guidance in the FS not only conflicts with EPA CERCLA guidance, it runs contrary to EPA's obligation to fully disclose information that is highly relevant to important decisions EPA has made in developing cleanup levels and other key aspects of the FS. Stakeholders deserve to be informed about factors considered by EPA in the FS. Ecology's views concerning how Ecology's own regulations should be implemented, although not themselves ARARs, are certainly "to be considered" criteria. Rather than attempting to obscure the decisions EPA made by deleting references to SCUM II from the FS, EPA should permit the disclosure in the FS of how Ecology's guidance differs from the path that EPA required for the FS analyses.

3. EPA's changes to Appendix A create unnecessary uncertainty regarding the finality of the cleanup, and inappropriately comment on whether a technical impracticability waiver is justifiable.

Obtaining a final site remedy is important in order to provide assurance to the Port, other PRPs, and the taxpayers of Seattle and King County that the East Waterway cleanup will only need to be done once. Although remedy finality is always important at CERCLA sites, it is particularly important in Washington where state sediment cleanup levels for certain contaminants are set by default at natural background concentrations. Because no remedy for urban sediment sites has ever achieved and maintained PCB sediment concentrations anywhere close to natural background levels, an interim remedy decision creates the expectation that additional sediment remediation will be required at some point in the future. East Waterway remedial action will likely cost well in excess of $250 million. To dredge much of the waterway - only to risk subsequently being told that it needs to be dredged a second time (because it is not as clean as the most pristine corner of Puget Sound), is simply not a tenable position to hold, particularly for the Port as a steward of public funds.

Because the FS analyses clearly demonstrate that natural background concentrations are not achievable in the East Waterway, EPA is left with three viable paths to remedy finality: (1) reliance on Ecology's future calculation of regional background values, which are expected to be

[15] In addition to the requirement in EPA's June 28, 2018 directive to the Port, Mr. Sanga directed the Port's FS contractor in a May 16, 2018 email that SCUM II "shouldn't be referenced in the FS." *See* **Exhibit 9**.

met by site remedial action;[16] (2) reliance on the tools now included in the Sediment Management Standards, such as sediment recovery zones, as discussed above and in Exhibit 4, section 5; and (3) EPA's issuance of a technical impracticability waiver (TI waiver) acknowledging that natural background standards for PCBs and dioxins/furans are simply not achievable.

In both the Introduction and Conclusions section of Appendix A, EPA inserted edits stating that a TI waiver "is not justifiable at this time." Exhibit 3 at 6. However, the Final FS language edited by EPA refers only to upward adjustments to cleanup levels under the Sediment Management Standards, which cannot occur until Ecology has set a regional background concentration that applies to the site. EPA's insertion of commentary on whether a TI waiver is currently justifiable is unsupported and inappropriate at this stage.

Technical impracticability is the basis for one of the six statutory and regulatory ARAR waivers provided for in CERCLA § 121(d)(4)(c) and NCP § 300.430(f)(1)(ii)(c)(3). EPA's published guidance explains this process clearly:

> Since Technical Impracticability (TI) waivers are only used when site-specific cleanups cannot meet regulatory requirements, their use requires special documentation in Proposed Plans, RODs, ROD Amendments, and ESDs. . . . A [TI] waiver may be used when compliance with an ARAR is technically impracticable; that is, compliance is not feasible from an engineering standpoint or because of excessive costs, particularly in relation to performance. . . . A decision to propose or invoke a TI waiver can be made at any time during the remedial process, but it must be included in a remedy selection decision document. Information supporting the TI decision can be included in the RI/FS, a separate TI evaluation report, or in a separate section or technical opinion of the decision document itself.

EPA, No. 540-R-98-031, A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents (July 1999), at 9-8.

EPA guidance advises that TI waivers be discussed in the Proposed Plan: "if sufficient site characterization and other supporting information is available as a result of the RI/FS, a decision to invoke a TI waiver can be made in a subsequent decision document. . . . The Proposed Plan provides the foundation for invoking the TI waiver in the ROD. CERCLA and the NCP specify that the Proposed Plan must provide an explanation of any proposed ARAR waiver to allow the public an opportunity to comment on the waiver." *See id.; see also* NCP § 300.430(f)(2)(iv).

While we do not yet know whether EPA will invoke the option of a TI waiver in its Proposed Plan, there is certainly sufficient site characterization and supporting data to do so. Affirmatively stating in the FS that a TI waiver is "not justifiable at this time" is disingenuous and misleading

[16] Regional background values are concentrations that are "primarily attributable to diffuse sources," including stormwater. Following active remediation and source control efforts, the East Waterway should equilibrate to concentrations determined primarily by diffuse sources.

to the public. The FS should, at minimum, remain silent on this question – as the November 2017 version of Appendix A does – as this allows EPA to preserve all of its regulatory options for the Proposed Plan and the Record of Decision.

4. EPA's changes to Appendix A are contrary to EPA guidance and the EPA Superfund Task Force Recommendations

EPA's required changes to the East Waterway FS are inconsistent with specific provisions of EPA guidance for contaminated sediment sites, as well as the general principles that form the basis for those provisions. Those principles, which are related to transparently providing objective evaluations of remedy effectiveness based on the best available information, underpin many of the EPA Superfund Task Force Recommendations from July 25, 2017 (Task Force Recommendations). *See* EPA, Superfund Task Force Recommendations (July 25, 2017), available at: https://www.epa.gov/sites/production/files/2017-07/documents/superfund_task_force_report.pdf. EPA's requirements are also inconsistent with the goals and recommendations expressed in the 2017 Task Force report, as discussed further below.

A. EPA's Changes to Appendix A Conflict with EPA Guidance for Contaminated Sediment Sites

EPA's 2005 guidance for contaminated sediment sites builds on NCP requirements establishing a process for evaluating potential sediment site remedies that includes considering the ability of remedial alternatives to meet remedial action objectives.[17] This evaluation should include consideration of "site specific site characteristics" in evaluations of the short-term and long-term effectiveness of remedy options.

Site-specific factors that limit the ability of any East Waterway remedy to meet remedial action objectives based on natural background concentrations for PCBs are objectively and transparently discussed and evaluated in the "maximum remediation" analysis that EPA required the Port to perform. Although the maximum remediation analysis' estimates of the lowest achievable concentrations were based on modeling, which has inherent uncertainties, the Port also evaluated other lines of evidence, such as examples of levels that have been achieved at other sediment cleanup sites. All lines of evidence and analyses point to one conclusion: PCB and dioxin/furan cleanup levels based on natural background concentrations are not achievable in the East Waterway. This type of evaluation is precisely what EPA's contaminated sediment guidance calls for, which supports why EPA required that it be performed in the first place. That the Port has now been directed to remove it from the FS conflicts with agency guidance, and this direction should be rescinded.

[17] *See* EPA, EPA-540-R-05-012, Contaminated Sediment Remediation Guidance for Hazardous Waste Sites (December 2005), which discusses evaluations of whether remedies will achieve both target tissue concentrations for marine biota and human health risk targets for seafood consumption. The East Waterway FS remedy evaluations do not expressly discuss the ability of the remedy alternatives to meet target tissue concentrations. The Final FS submitted by the Port in November 2017 does, however, evaluate the ability of remedy alternatives to meet target risk levels. EPA has directed the Port to delete that discussion.

B. EPA's Requirements Conflict with Superfund Task Force Recommendations

EPA's changes to Appendix A also conflict with both the spirit and the specific goals and recommendations of EPA's Superfund Task Force. Above all, the Task Force Recommendations call for a renewed emphasis on reasonable and efficient Superfund cleanups, conducted with enhanced cooperation with PRPs and other stakeholders. "Barriers" to this overall purpose are to be identified and removed. Four of the five overall goals of the Task Force directly relate to the East Waterway cleanup:[18]

1. Expediting Cleanup and Remediation
2. Re-Invigorating Responsible Party Cleanup and Reuse
4. Promoting Redevelopment and Community Revitalization
5. Engaging Partners and Stakeholders

For Goal 1, "Expediting Cleanup and Remediation," one of the enumerated strategies is to "foster cooperative partnerships" with PRPs and to "expedite remediation" through making use of "the flexibilities inherent within the [CERCLA] statute and the NCP." Task Force Recommendations at 3. These flexibilities include "determining whether a technical impracticability waiver is warranted." *Id.* The recommendations state, "[t]hese strategies, considered early in the cleanup process, may allow for early stakeholder consensus and input and more expedient implementation of remedies." *Id.* In short, the Task Force Recommendations call for making timely and technically-reasonable remedy decisions in order to expedite the overall cleanup process.

The Port is ready to move forward with an expeditious cleanup, and the November 2017 Final FS simply and objectively discloses the context for key FS decisions, as well as the results of EPA-directed analyses concerning the lowest achievable concentrations for the site. By obscuring this information, EPA has excised from the document material that is necessary for decision-making and cooperative dialogue. Rather than expediting cleanup, this manipulation of a key component of the FS will likely lead to more delays for a site that has, for decades, experienced far more than its fair share of delays.

For Goal 2, "Re-invigorating Responsible Party Cleanup and Reuse," the Task Force Recommendations state that "cleaning up a Superfund site can be completed faster and more efficiently by using incentives" to PRPs, and call for providing "incentives to cooperative, high-performing PRPs" in the form of "reduced oversight." *Id.* at 8. The Port has been a cooperative, high-performing PRP on multiple NPL sites since the early 1990s, and specifically on the Harbor Island Waterways since the mid-1990s. The Port and EPA have experienced great success at some of these sites, including expedited cleanups when the Port and EPA were able to work within an atmosphere of trust and mutual respect. The "reduced oversight" component of this Task Force goal addresses allowing high performing PRPs to do the good technical work they are capable of doing in a trust-based relationship of the type the Port has experienced with EPA in the past, and hopes to again.

[18] The remaining goal (#3) relates to third-party investment for funding cleanups, which to date is not an issue at the East Waterway.

For Goal 4, "Promoting Redevelopment and Community Revitalization," the Task Force Recommendations call for engaging with stakeholders to maximize community benefits from remediated sites. *Id.* at 20. The Port is ready to move efficiently towards remediation of the East Waterway. We believe that other PRPs are ready to participate in East Waterway remedial action as well, provided a reasonable remedy decision is made in accordance with the analyses done for the FS. An FS that clearly and objectively discloses the results of those analyses is essential for timely progress towards East Waterway remediation.

For Goal 5, "Engaging Partners and Stakeholders," the Task Force Recommendations recognize that "[m]aking the Superfund process more efficient . . . must necessarily include building stronger strategic partnerships with key stakeholders," and call for working with "stakeholders to identify barriers and opportunities related to cleanup and reuse of Superfund Sites." *Id.* at 25-26. EPA's engagement with stakeholders needs to be transparent in order to meet this Task Force goal. An FS that fails to disclose the full context for FS decisions, such as differences between EPA's approach to a state ARAR versus the state's own approach, will not build stronger partnerships with stakeholders; it will only serve to alienate them.

Taken as a whole, the Task Force Recommendations amount to a call for reasonableness and cooperation with stakeholders at Superfund sites, recognizing that this will catalyze more efficient cleanups and beneficial re-use of sites after cleanup. We agree with these goals, and we believe EPA's changes to Appendix A do not reflect the spirit of the Task Force Recommendations and will instead be a barrier to timely progress.

5. Accepting the November 2017 version of Appendix A will provide transparency to the public about the nature of the cleanup, and will not change the substantive remedy or level of work performed.

The explanation of the regulatory and technical landscape that is presented in the Final FS Appendix A, submitted by the Port in November 2017, fully supports an EPA final remedy decision and does not affect the analysis of available remedy alternatives or otherwise mandate a particular final remedy for the East Waterway. The Port sees no need to delete descriptions of analyses performed and conclusions reached in the interest of being able to select a more comprehensive site remedy. There is also no need to be less than transparent concerning decisions that EPA made in the development of the FS, such as choosing a different statistical method than Ecology uses for the determination of natural background concentrations.

All of the viable FS remedy alternatives require a comprehensive cleanup in the East Waterway costing hundreds of millions of dollars, and none of the FS alternatives will achieve natural background concentrations of PCBs and dioxins/furans in East Waterway sediments. EPA's remedy choice will be based on an evaluation of which remedy components provide further significant reductions in risk levels without requiring disproportionate further expenditures or creating new risks of their own. Use of the Port's November 2017 Appendix A will not change EPA's remedy decision or limit its options. Instead, it will support an open and transparent remedy decision through the full disclosure of the results of FS analyses and the bases for decisions made during production of the FS. This will help ensure that East Waterway

remediation happens sooner, rather than later, for the benefit of both the community and the environment.

CONCLUSION

For all of the foregoing reasons, the Port respectfully requests that EPA approve the East Waterway Final FS including the version of Appendix A that the Port submitted on November 3, 2017.

We look forward to discussing this matter with you further.

Sincerely,

Elizabeth C. Black
Senior Port Counsel

Enclosures

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